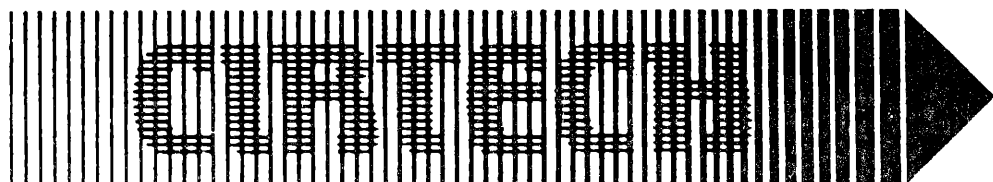


DEALER INSTALLATION INSTRUCTIONS

//c CP/M Module

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//c CP/M MODULE

DEALER FITTING INSTRUCTIONS

INTRODUCTION

The CP/M module is a microprocessor hardware system designed to allow the APPLE //c to run all standard APPLE II CP/M software with no modifications necessary AND at up to 30% faster than most CP/M cards. It is fully compatible with CP/M version 2.23. The Module comes complete with RAMDRIVE, a utility which uses 64K of the //c's memory not used by CP/M as a fast RAM disk.

INSTALLATION

This section contains step-by-step instructions for installing the CP/M module. We recommend that you read all of the instructions first to familiarise yourself with the procedure.

Tools Required:

To complete the installation you will require only a small cross-head screwdriver and a small flat-head screwdriver.

Handling Precautions:

- Always make sure that the power is turned OFF before you remove or install any part.
- Before handling any part inside the APPLE or the Module, 'discharge' yourself by touching an 'earthed' surface (eg. the case of the power supply inside the APPLE) to remove any static charge you may be carrying. You should 'discharge' yourself regularly throughout the installation procedure.

As some of the components you will be handling are particularly static sensitive (eg. the 65C02), it is advisable to carry out the entire installation procedure on an anti-static mat. Alternatively, if you have no anti-static mat, make sure that you are always in contact with an 'earthed' surface (eg. the power supply case) when handling the 65C02.

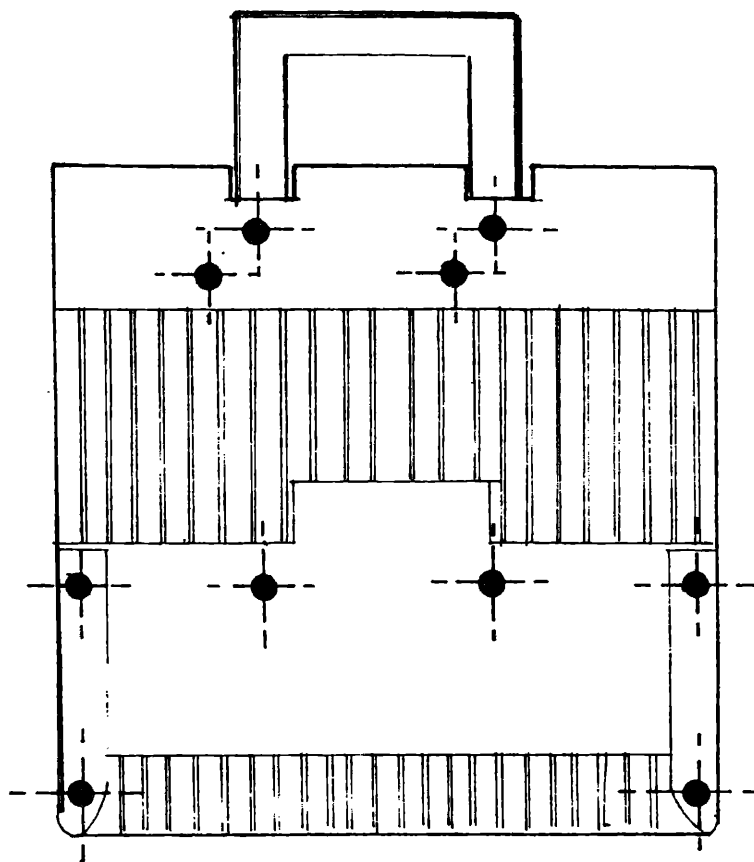
- Hold the Module by the edges only and do not touch the components more than absolutely necessary.

Procedure:

- Unplug the //c and place it with the keyboard side downwards.

Procedure (cont.):

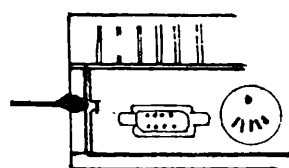
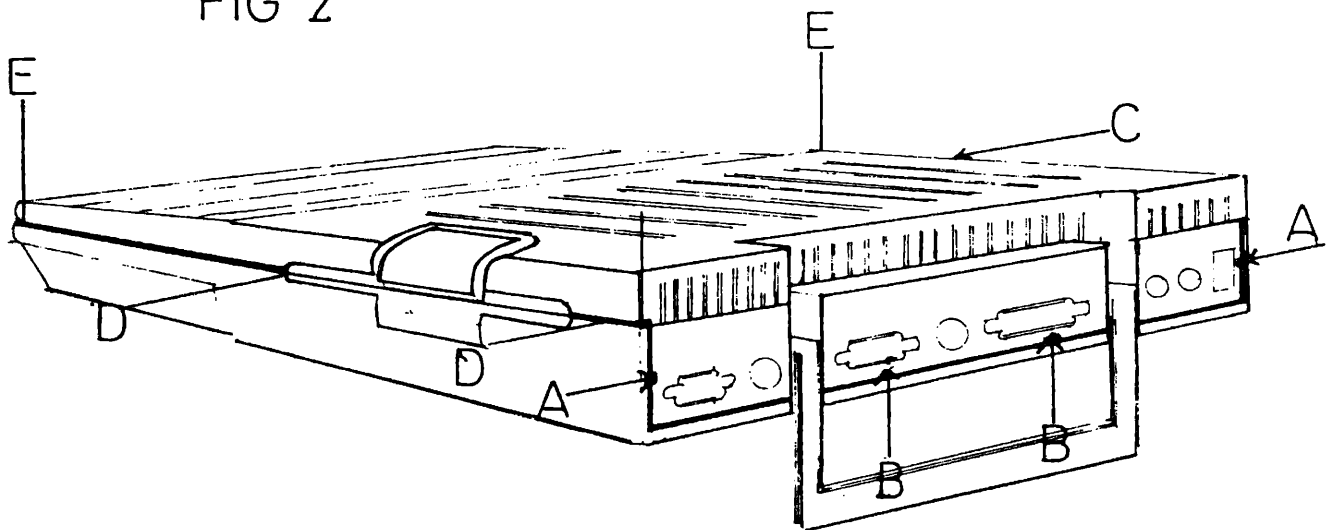
- Remove the ten screws identified in Fig. 1 below.



Procedure (cont.):

- Turn the unit so that the back is in view (see Fig. 2). Insert the flat headed screwdriver into points A (see Fig. 2) and gently lever the outer ends of the back panel away from the main unit. Insert the flat headed screwdriver into points B (see Fig. 2) and carefully lever the back panel up and over the disc drive and modulator connectors, whilst pulling the top of the case upwards. Push the top of the case in the direction of Arrow C (see Fig. 2) to disengage clips D (see Fig. 2). The case top should now be lifted from the rear and removed from the base of the main unit.

FIG 2



Detail
A

Procedure (cont.):

- Carefully lift out the keyboard and place it, keys down, on top of the disc drive and power unit (see Fig. 3).
- Remove the 65C02 (REMINDER: This component is particularly static sensitive) from its socket in the APPLE //c (by gently levering between the body of the 65C02 and the socket at alternate ends with the flat headed screwdriver) and plug it into the empty socket on the CIRTECH CP/M Module so that the notched end of the component is on the left when the Module is positioned as shown in Fig. 3. Make sure that all pins are correctly inserted into the socket.

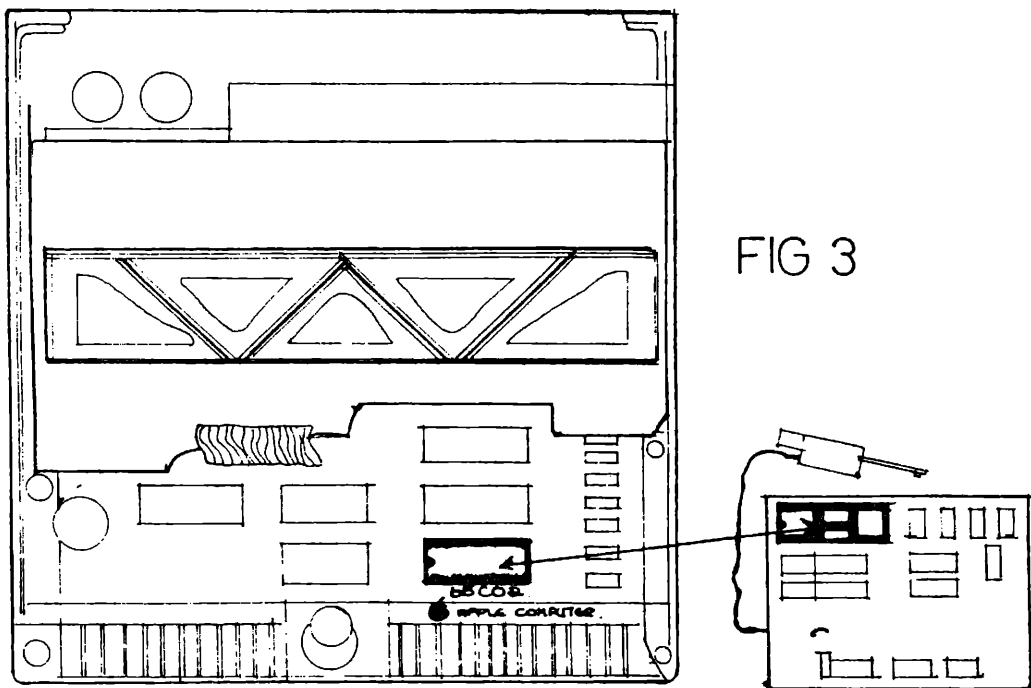
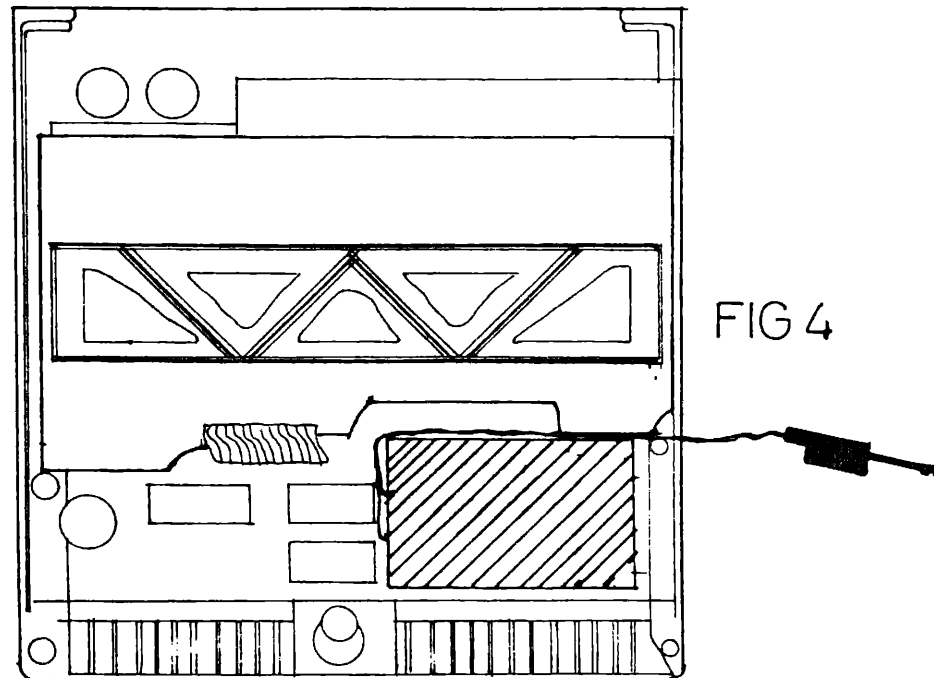


FIG 3

Procedure:

- Plug the CP/M Module into the now empty socket in the //c, making sure all the pins are properly engaged and lead the cable to the position shown in Fig. 4 .

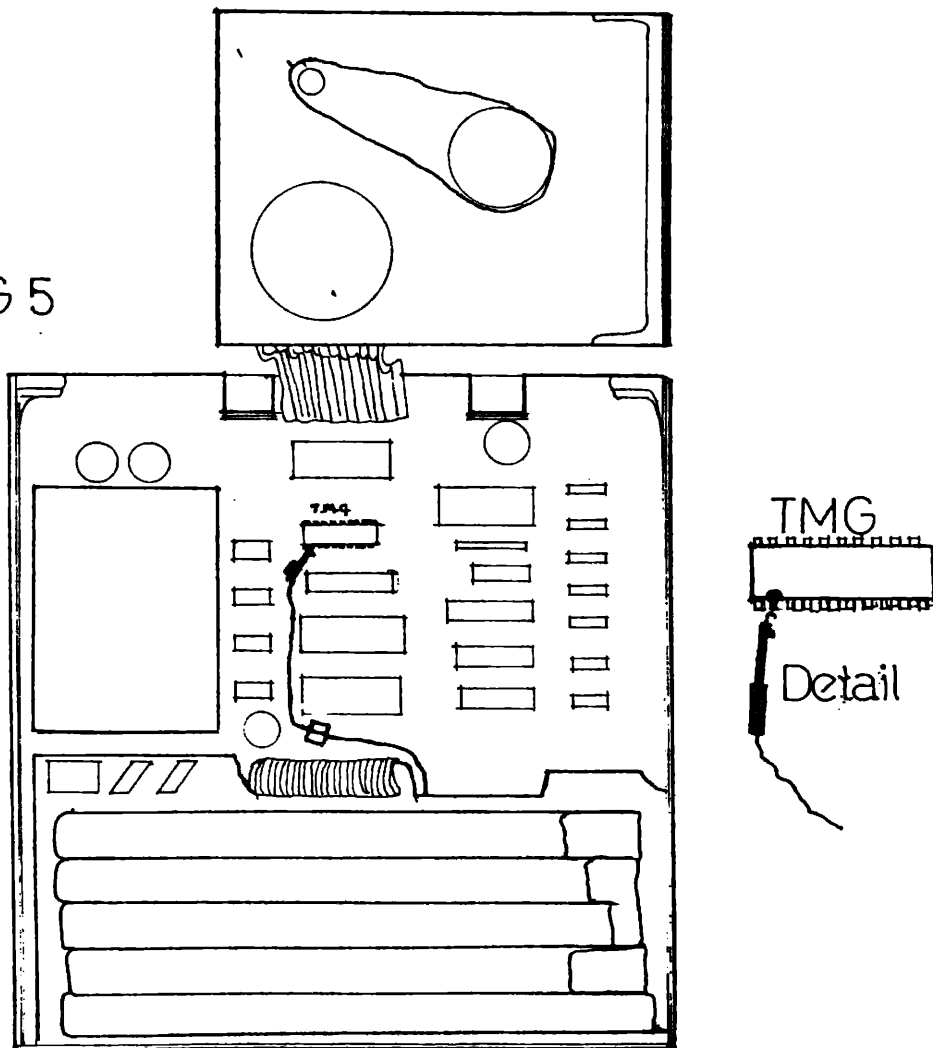


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*****
*
*  WARNING! The above two operations must be carried out correctly. *
*          Failure to do so will result in fatal damage to the //c. *
*
*****
```

Procedure (cont.):

- Replace the keyboard to its original position. Carefully lift the disc drive up and out of the //c, placing it at the rear as shown in Fig. 5.
- Attach the clip on the end of the wire to Pin 2 of the TMG component exactly as shown in Fig. 5 (Detail). Using the sticky pad supplied, attach the cable to the main //c pcb in the position shown in Fig. 5, making sure the cable is flat on the pcb. (The cable must be held below the level of the disc drive support pillars to prevent mechanical interference with the disc unit's drive mechanism.)
- Replace the disc drive to its original position and replace the cover on the //c.

FIG 5



FAULT FINDING

If when power is applied, the APPLE does not 'beep' and the screen shows a 'bar' pattern, switch off IMMEDIATELY. The likely problem is either that the Module is not correctly seated into the //c or that the 65C02 is not plugged into the Module correctly.

If the APPLE works normally but will not boot CP/M, then the likely cause is that the clip may not be fitted correctly.

OPERATION

Once you have installed the CIRTECH CP/M Module in the //c, all you have to do is place a CP/M system master or CP/M program disc in the disc drive and switch on! The CP/M Module is activated only by 'booting' a CP/M disc and will not interfere with the normal operation of the APPLE //c.

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